

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Johannes BARTHOLOMÄUS et al.

US Patent Application Serial No.: 10/718,112 (US 2005-0031546 A1)

Title: Abuse-proofed dosage form

Filed on November 20, 2003

DECLARATION UNDER 37 C.F.R. § 1.132

Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

I, Heinrich Kugelmann, residing at Blücherplatz 7, 52068 Aachen, a citizen of Germany, declare that:

I am a pharmacist and joined Grünenthal GmbH, Aachen Germany, on August 1, 1981. Since 1981 I have been employed by that company in the department Pharmaceutical Development, since 2005 as group leader New Therapeutic Entities Research.

I am familiar with the field of medical dosage forms, and am one of the inventors of U.S. Patent Application Serial No. 10/718,112.

The following experiments have been conducted under my supervision and control:

Tablets with the following compositions were manufactured:

[mg]	A-1	A-2	B-1	B-2	C-1	C-2
Oxycodone HCl	20.0	130.0	20.0	130.0	20.0	130.0
Polyethylene oxide						
M <sub>w</sub> 600,000 g/mol	130.0	20.0				
M <sub>w</sub> 5,000,000 g/mol			130.0	20.0		
M <sub>w</sub> 7,000,000 g/mol					130.0	20.0
Total weight	150.0	150.0	150.0	150.0	150.0	150.0
Breaking strength [N]	>500	<500	>500	<500	>500	<500

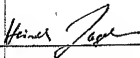
Oxycodone hydrochloride and polyethylene oxide powder were mixed. A tableting tool with top punch, bottom punch and die for tablets with a diameter of 7 mm was heated to 80 °C in a heating cabinet. 150 mg portions of the powder mixture were pressed with the heated tool, wherein pressure was maintained for at least 15 seconds by clamping the tableting tool in a vice.

The breaking strength of the tablets was determined with the apparatus and method in accordance with US 10/718,112. The results of the breaking strength measurement are summarized in the above table.

The tablets with a breaking strength >500 N (examples A-1, B-1 and C-1) could not be comminuted using a hammer, nor with the assistance of a mortar and pestle.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed at Aachen, Germany, Februar 6, 2009

A handwritten signature in black ink, appearing to read 'Heinrich Kugelmann', is written over a horizontal line.

Heinrich Kugelmann

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Johannes BARTHOLOMÄUS et al.

US Patent Application Serial No.: 10/718,112 (US 2005-0031546 A1)

Title: Abuse-proofed dosage form

Filed on November 20, 2003

DECLARATION UNDER 37 C.F.R. § 1.132

Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

I, Heinrich Kugelmann, residing at Blücherplatz 7, 52068 Aachen, a citizen of Germany, declare that:

I am a pharmacist and joined Grünenthal GmbH, Aachen Germany, on August 1, 1981. Since 1981 I have been employed by that company in the department Pharmaceutical Development, since 2005 as group leader New Therapeutic Entities Research.

I am familiar with the field of medical dosage forms, and am one of the inventors of U.S. Patent Application Serial No. 10/718,112.

The following experiments have been conducted under my supervision and control:

Tablets with the following compositions were manufactured:

[mg]	A-1	A-2	B-1	B-2	C-1	C-2
Oxycodone HCl	20.0	130.0	20.0	130.0	20.0	130.0
Polyethylene oxide						
M <sub>w</sub> 600,000 g/mol	130.0	20.0				
M <sub>w</sub> 5,000,000 g/mol			130.0	20.0		
M <sub>w</sub> 7,000,000 g/mol					130.0	20.0
Total weight	150.0	150.0	150.0	150.0	150.0	150.0
Breaking strength [N]	>500	<500	>500	<500	>500	<500

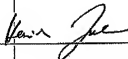
Oxycodone hydrochloride and polyethylene oxide powder were mixed. A tableting tool with top punch, bottom punch and die for tablets with a diameter of 7 mm was heated to 80 °C in a heating cabinet. 150 mg portions of the powder mixture were pressed with the heated tool, wherein pressure was maintained for at least 15 seconds by clamping the tableting tool in a vice.

The breaking strength of the tablets was determined with the apparatus and method in accordance with US 10/718,112. The results of the breaking strength measurement are summarized in the above table.

The tablets with a breaking strength >500 N (examples A-1, B-1 and C-1) could not be comminuted using a hammer, nor with the assistance of a mortar and pestle.

I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed at Aachen, Germany, Februar 6, 2009



Heinrich Kugelmann